

Product – ADC v12

Topic: Miranda LGK-3901

The LGK-3901 Logo Inserter & Downstream Keyer (a variant of the IS-750) is a low cost, modular channel branding processor, capable of inserting up to five layers of graphics into 3Gbps/HD/SD. Three of the keying layers can be fed by internally stored still/animated graphics, and two layers are fed by external graphics devices. The LGK-3901 is ideal for pre-rendered graphics.

Support for 3 layers only

The LGK-3901 driver is based on the driver for the ImageStore 750. All the functionality of ImageStore-750 is carried over to the Miranda LGK-3901 driver except the count of layers and heads. ImageStore-750 has 4 layers. And Miranda LGK-3901 has 3 layers.

Driver Limitations

- ADC is unable to control the PresMaster MCS through any of its ImageStore drivers (including the IS-750 and LGK-3901)
- Control of the Easy Sound option has not been implemented.
- The Storage Check functionality was not tested and is not supported.

Release Date: 9-December-2014

Revision History

Revision	Protocol	Date	Author	Company	Description
1		1/31/14			Initial

Version Used

Firmware:

Protocol:

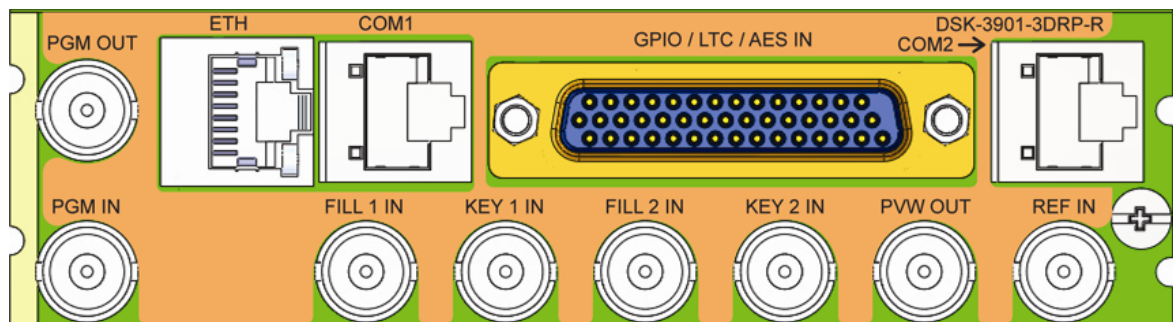
Device Settings

To configure an LGK-3901/DSK-3901 to forward commands onto a Graphics Co-Processor connect a serial link between the card and the Co-Processor, and from the panel set the protocol and baud rate for the serial port as follows:

1. These settings are made from the system menu, to get to this menu select the “set up” menu from the front panel and press ENTER (the bottom key on the panel).
2. Select “system” from the menu that appears next, the device prompts with a “system change {NO} {YES}” display, select YES to continue.
3. First set the device for Cascade mode. Select the “swap-PVW / cascade” item, choose the cascade option and press ENTER.
4. The device must be set up for RS422 control. Select the serial protocol menu item, then choose RS422 and press ENTER. Set the baud rate to 19,200. The protocol should be set to “strict” and not “relaxed” on the SD models, on the HD model set the protocol to “automation”.
5. On the front panel under SETUP > SERIAL COMMS > SERIAL PORTS > COM 1/2 > PROTOCOL > INTUITION
6. On the front panel under SETUP > SERIAL COMMS > SERIAL PORTS > COM 1/2 > BAUD RATE > 19200

Cable Requirements

The following image represents the back plane of an LGK-3901.



COM 1/COM2 port

- **COM 1** is an RJ45 port that provides serial bidirectional communications to external Automation systems, EAS units (LGK-3901 only with LGK-3901-OPT-EAS) or a slave Intuition XG device.
 - The serial port type can be configured as RS232 or RS422, and the baud rate set to 1200, 9600, 19200, 38400, 57600 or 115200.
 - The serial port can also be set to receive Oxtel Automation commands or to transmit certain Oxtel Automation commands to a slave Intuition XG device. For EAS the serial port will receive ENDEC 1822 and TFT EAS 911T protocols, and for the temperature Probe it will received ST61XX TEMP SENS protocol.
- **COM 2** is an RJ45 port that provides identical functionality to COM 1. This allows two external devices (for example, Automation and EAS) to independently control the LGK-3901/DSK-3901.

The pin-out of the COM 1 and COM 2 ports is:

Pin No	Signal Name RS422	Signal Name RS232
1	TX+	RTS
2	TX-	TXD
3	RX+	CTS
4	NC	NC
5	NC	NC
6	RX-	RXD
7	NC	NC
8	GND	GND

Communications Parameters

The communications parameters for the device cannot be changed. They are preset in the ADC device server. The settings below are provided for your information.

- Baud Rate: 19,200
- Data Bits: 8
- Parity: none
- Stop Bits: 1

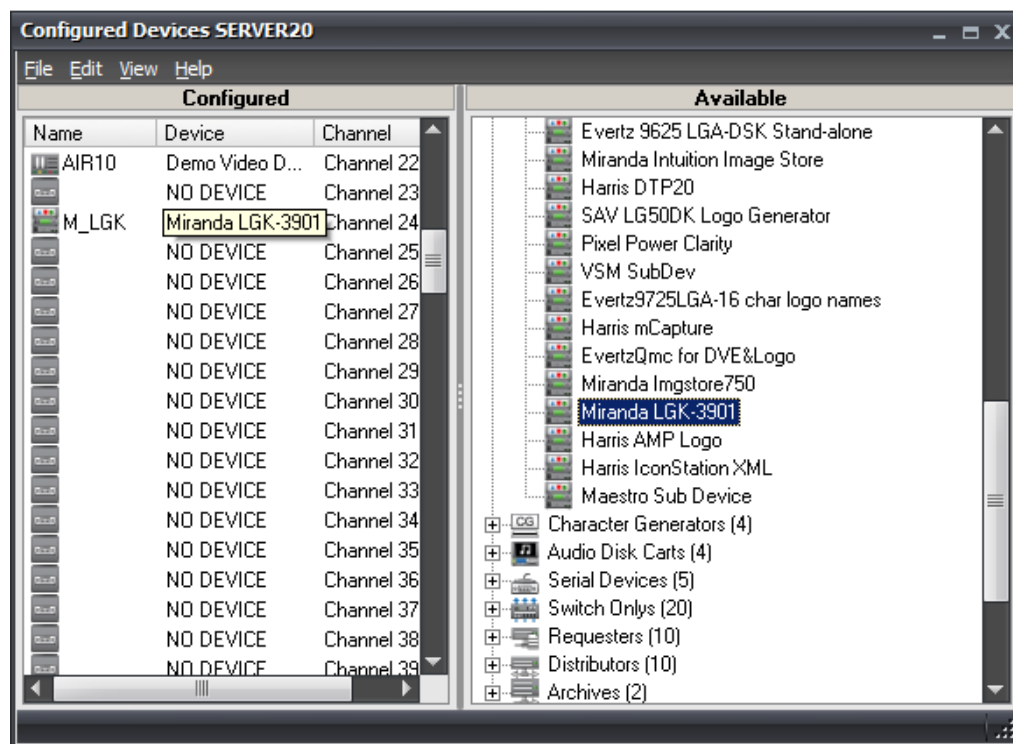
Device Server Set-Up

IMPORTANT Configuration Note: When you have finished making changes on a configuration screen, press Apply and all changes made upon the current configuration window will be applied to the driver. Press OK, and any configuration changes made upon the various tabs will be applied, however, the configuration window will close. Press Cancel and none of the configuration changes will be applied to the driver and the configuration window will close.

Device Driver Configuration (Still Store)

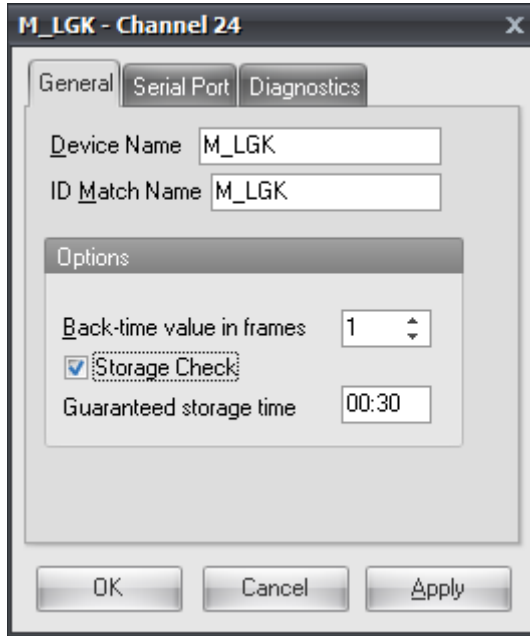
To configure the Still Store driver for Imagestore on the Device Server, follow the procedure below:

1. From the Configuration utility, right-click on your Device Server icon and select the Configured Devices item to display the “Configured Devices” window.
2. From the list in the right hand pane select “**MIRANDA LGK-3901**” from the “**Still Stores**” category. Use the mouse pointer to drag this item over the top of one of the icons in the left hand pane that has the caption “NO DEVICE,” as shown below.



3. Select the M_LGK icon just created and press the right mouse button to bring up a menu. Select “**Properties**” from this menu (or double-click on the icon instead).

4. Click on the **General** tab.



The screenshot shows a configuration window titled "M_LGK - Channel 24" with three tabs: "General", "Serial Port", and "Diagnostics". The "General" tab is selected. It contains the following fields and options:

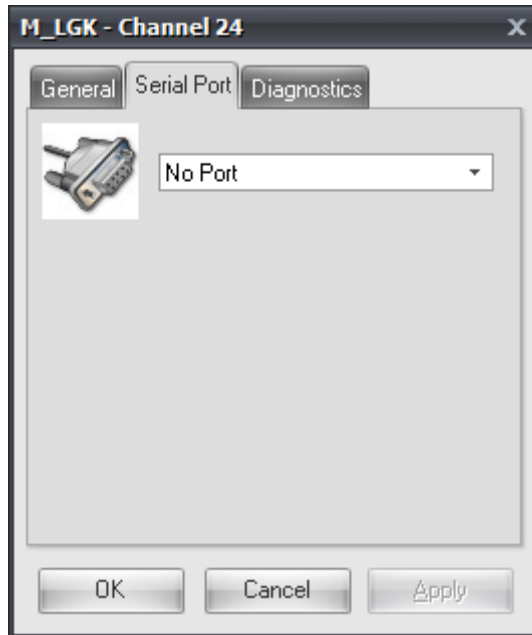
- Device Name:** A text field containing "M_LGK".
- ID Match Name:** A text field containing "M_LGK".
- Options:** A sub-section containing:
 - Back-time value in frames:** A numeric field with a value of "1" and up/down arrows.
 - Storage Check:** A checked checkbox.
 - Guaranteed storage time:** A time field showing "00:30".

At the bottom of the window are three buttons: "OK", "Cancel", and "Apply".

Configure the following parameters as required:

- The **Device Name** will appear in the Device Status and configuration windows on the client applications. The default name may be used but it is recommended to use unique names for easy identification later.
- The **ID Match Name** will be used in the Transmission List's ID Field to let the system know that the event is intended for the device.
- The **Back-Time value in frames** determines when commands should be sent to the Imagestore. A non-zero value in this field indicates the number of frames that commands will be sent early (during preroll, before the play counter actually starts). This value is set at 1 by default, it shouldn't need to be changed. However if the timing of the device is off with respect to the switcher, this parameter may be changed to adjust the output timing. This parameter does not change the timing for secondary data commands.
- The **Storage Check** setting, when enabled, this will allow Device Server to check on the availability of an ID prior to registering it within the ADC Transmission List.
- **Guaranteed storage time:** This parameter is available when Storage Check is enabled. This parameter specifies the time (MM:SS) during which media will not change. (i.e. it is the interval of recheck events in a playlist.) Default: 30 seconds. Range: 10-99. Recommended: Specification for this parameters should be a multiple of 10 seconds.

5. Select the **"Serial Port"** tab.

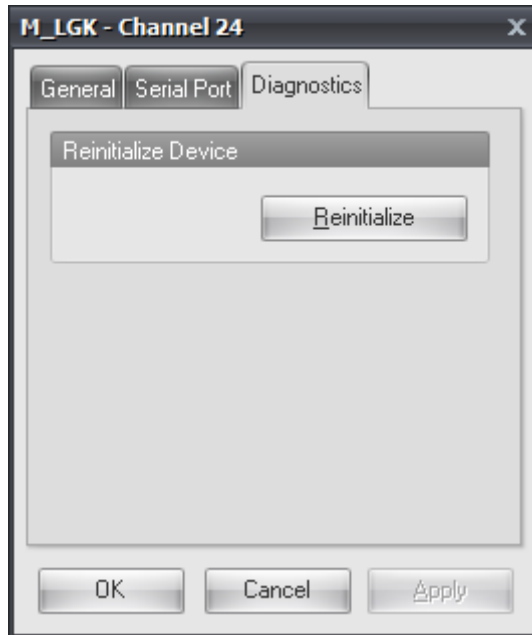


Configure the physical serial port number.

Choose “Serial Port” in drop-down list. This port selected is physical port which the Imagestore 750 is connected to.

When viewing the serial port cards on the back of the ADC Device Server, the upper left serial port is Port 1. The port numbers increase as you count down the ADC serial board. The top serial port of the next serial card will be the following port number.

6. The **Diagnostics** tab. This tab contains a **Reinitialize** button, which will clean the buffers in the driver and reset the connection to the Imagestore. This should only be used for troubleshooting purposes.



7. When finished click Apply

Assign the Device To a List

To assign the LGK-3901 driver to a list, do the following:

1. From the Configuration utility, right-click on your Device Server and select List Configurations to display the **List Assignments** window.
2. Locate the LGK-3901 driver in the **Available Devices** column. Left-click and drag it to the desired Transmission List in the Lists column. Release the mouse when the pointer is over the Icon for the list.

Operation Notes

As mentioned above, the Imagestore and LGK-3091 drivers are only intended for use in Cascade mode. If the device is set to Swap Preview mode when the driver is initialized this error will be logged: 'MEDIA DEVICE NOT PROPERLY INITIALIZED'. This does not prevent operation in Swap Preview mode. It is still possible to control the device in this mode using secondary data events.

The device responds to each command with an ACK (acknowledgment that it received the command).

- If the device does not ACK a command within five seconds or a NAK (negative acknowledgment) is received, the command is resent.

- If the device still doesn't respond correctly after two more failed attempts to communicate with the device, the device status will change to "NO DEV" and an error will be logged that communication was lost with the device.

If this occurs, the interface software tries to communicate with the device every five seconds; when it gets a reply, the status returns to "UNTHREAD".

When the device receives a command it only verifies that the format of the command is correct and that the CRC is valid, it does not check the validity of a command before returning an ACK. Invalid commands or commands containing invalid file numbers will be ignored.

Animation Support

The ImageStore-750 (IS-750) and the LGK-3901 (M_LGK) driver support of Animation control. Four Secondary Data Events were added to implement Animation commands: Start Animation (S0), Stop Animation (S1 0), Stop Animation Now (S1 1), and Restart Animation (S4).

Important: Enhanced animation control is only available in ADC v12.19 and above (Imagestore), and ADC v12.22 and above (LGK-3901) . It is not available in ADC v11.

Animation Commands

- Start Animation (S0): Starts or restarts an animation playing out. The animation starts playing from the current field. To force payout from the beginning, set the current field before issuing this command.
- Stop Animation (S1)
 - Stop Animation (S1 0): The animation is halted. If the complete cycle flag is set (0), the animation completes its cycle before halting. In some animations, this may cause a special stop section of the animation to execute.
 - Stop Animation Now (S1 1): The animation is halted. If the immediate flag is set (1), then animation halts immediately at the specified frame.

Animations always halt showing two frames to form a field. If there is much interfield motion, the image will flicker.

- Restart Animation (S4): Always restarts an animation playing out from the beginning. This command is a convenient alternative to the S0 command when the animation has to always start from the first field.

Format Title field

The Format Title field for these command is:

PlayAnimation:<Layer>

StopAnimation:<Layer>

StopAnimNow:<Layer>

ReStartAnim:<Layer>

Where <Layer> should be in range 0..3

AUTOMATION

Either primary or secondary events may be played on the device. When using primary events, you must configure the AUDIO/VIDEO parameters for the heads as with other devices. If the output of the device is not being used as a primary video feed but as possibly a key, then both a secondary key event and secondary Audio/Video event are required.

For the device to play a list event the ID field of the event must match the device name for the still store device. For Primary, Secondary A/V, and Backtimed A/V events the “Title” field of the event will contain either the file number (still) to be loaded from the device, or it may contain the word “Live” to play the image present on the key and fill inputs. Files are named **Vnnn.OXT** (for stills) or **Vnnn.OXA** (animations) in the Miranda media software, however the files are referred to by just their number nnn ADC software; the leading V and file extension are omitted in the playlist. The format of the event’s title will be different between secAV and secData events. The formats and samples of the events will be provided in each section of the event types.

Device Server supports Restart Animation, Start Animation, and Stop Animation commands. This also applies to playing internal Audio Files.

For new secondary data events

To support the commands with the IS-750 and LGK-3901 drivers, four types of the Secondary Data Events were added to the list of supported commands.

The “Title” field within the ADC Transmission List for the new sDAT commands should be:

1. Start Animation:
PlayAnimation:<Layer>
2. Stop Animation Complete cycle, then stop
StopAnimation:<Layer>
3. Stop Animation Immediate stop
StopAnimNow:<Layer>
4. Restart Animation
RestartAnim:<Layer>

Where: <Layer> - Integer in the Range [0..3]

Playlist Example using the new sDAT Animation control

33	14:55:20:16	LIST 1 A CUED		A	A	1	DK TEST	00:00:59.28
34	00:00:00:00	IS750		sDAT	PT	IS750	LOADI:3 Pizza	00:00:00.00
35	00:00:10:00	IS750		sDAT	PT	IS750	PlayAnimation:3	00:00:00.00
36	00:00:30:00	IS750		sDAT	PT	IS750	StopAnimation:3	00:00:00.00
37	00:00:40:00	IS750		sDAT	PT	IS750	RestartAnim:3	00:00:00.00
38	00:00:50:00	IS750		sDAT	PT	IS750	StopAnimNow:3	00:00:00.00

Secondary A/V format

Alphanumeric file names are supported using the 'Play' command. When using A/V events to recall Logo files, each of the 16 heads for the ImageStore device correspond to one of the keyer layers; head 1 is the midground layer and heads 2 through 16 are the foreground layers.

IMPORTANT: All the functionality of ImageStore-750 is carried over to the Miranda LGK-3901 driver except the count of layers and heads. ImageStore-750 has 4 layers. And **Miranda LGK-3901 has 3 layers.**

There are two kinds of A/V events: "Play" and "Live". The format in the event's title field of each event type as follows:

Play:<LEVEL><SPACE><PageID>

Where, <SPACE> is an empty space between level and page's ID; <LEVEL> is in [0..15], and <PageID> is an alpha-numerical string.

Live:<LEVEL>

Where, <LEVEL> is in [0..1]

The levels 0 and 1 are Imagestore Levels. The levels from 2 to 15 correspond to levels from 0 to 13 of Intuition. There is the difference in playing logo files on Imagestore and on Intuition devices. To recall the file on Imagestore, you should just use the "PLAY" command with level 0 or 1. To Recall files on Intuition Device you should send the "LIVE" command first with Level 0 or 1. Until then this command will not be carried out, you can send to different Intuition levels the command "PLAY".

A command is sent to load the desired still, or switch to the live signal when the event is cued. This occurs when an event comes into the look ahead count and a head is free to play the event. When the event actually plays the keyer for that layer is turned on, when it finishes playing the keyer is turned off. The still will remain loaded on the keyer layer until another event is cued on the corresponding head, or a secondary data event loads another still.

Secondary Data Events may also be used to control the Logo file recall functionality. This is described below.

LIVE:

The Imagestore and Imagestore750 drivers support the additional selection of Fill/Key pairings. A new format is used within the Title Field of the Secondary Data Event; however, the previous format is also supported.

Suggested use of the old format for Title Field:

LIVE:<Layer>.

Where:

- <Layer> can be in range 0 thru 1 for Imagestore Driver
- <Layer> can be in range in range 0 thru 3 for Imagestore 750 Driver / LKG-3901 Driver

Suggested use of the new format for Title Field:

LIVE:<Layer> <Key/Fill Pair Number>.

- Key/Fill Pair number range is 1 thru 3

Note: *Miranda Device in use must support 3 Fill/Key inputs.*

Old "Title" field format can be used, if Key/Fill Pair Number = 1.

Provided Examples:

- Old Format: LIVE:2 = Use Layer 2 and Fill/Key pair with number 1 (used with IS-750 / M_LGK Devices)

Or

- New format: LIVE:2 1 (one space between 2 & 1)

LIVE:0 3 = Used when user want to use Fill/Key pair with a value more than 1. In this case, only the new format will work. In this example the Layer # is 0 and the Key/Fill pair # is 3

Squeezy 2D DVE Automation with Secondary Data Events

Several Secondary A/V events have been defined to combine frequently used DVE commands into a single event.

- SQM:X:Y:[Z]

Use this DVE event while the devcie is configured in Cascade Mode only. This will be used when the currently on-air background video is squeezed to reveal the Midground (0) logo buffer. Parameter X is the pre-defined squeeze move that is used at the beginning of the event, and parameter Y is used at the end of the event.

- If parameter Z is provided, the associated logo number is loaded onto layer 0 so that the logo will be revealed when the squeeze is played.
- If there is no Z provided, the Live input is loaded to layer 0.

- SQF:X:Y:[Z]

Use this DVE event while the device is configured in Cascade Mode only. This will be used when the currently on-air background video is squeezed to reveal the Foreground (1) logo buffer. Parameter X is the pre-defined squeeze move that is used at the beginning of the event, and parameter Y is used at the end of the event.

- If parameter Z is provided, the associated logo number is loaded onto layer 1 so that the logo will be revealed when the squeeze is played.

- If there is no Z provided, the Live input is loaded to layer 1.
- **SQB:X:Y**
Both Swap-Preview and Cascade Modes. This will be used when the On-Air Background (A) Input is squeezed back to reveal the other not on-air (B) Input.

Secondary Data Commands

Secondary data events may be used to send commands for a particular layer directly to the device.

- If a start time is not given for a Secondary data event the command is sent to the device when the associated primary event plays.
- If a start time is specified the time is used as an offset from the start time of the primary event. For secondary data events, head 1 is the midground layer and head 2 is the foreground layer (i.e. independent of primary or secondary A/V events). They may be sent while other events are playing.

These events may contain pre defined commands that are translated and sent to the device, or literal strings that are sent directly to the device.

Pre-defined Commands

All of the pre-defined commands can be sent to either of the two-keyer layers independently. The keyer layer is selected by adding a colon (:) to the end of the command followed by a '0' or a '1'. Layer 0 is the midground layer and layer 1 is the foreground layer. If a layer isn't specified it defaults to layer 1.

Not all commands are valid for both levels, and the valid commands change according to the Imagestore's mode.

Reference Note: Consult the Imagestore or LGK-3901 User's manual for more information.

- **CTB** : Cut layer to black
- **CFB** : Cut layer from black
- **CUP**: Cut keyer up
- **CDN** : Cut keyer down
- **FFB** : Fade layer from black
- **FTB** : Fade layer to black
- **FUP** : Fade keyer up
- **FDN** : Fade keyer down
- **GRAB** ; "Grabs" a frame from the key and fill input signals.

- **KLR** : Set key linear
- **KFL** : Set key full
- **KNL** : Set key normal
- **KIV** : Set key invert
- **LOAD** : Load a file number on the specified layer. The file number to load follows this command. E.g. "LOAD:0 7" loads file number 7 on the midground layer.
- **LOADI** : Load a file name on the specified layer. The file name to load follows this command. E.g. "LOADI:0 bug" loads file with name "bug" on the midground layer.
- **LIVE** : Load a live key. I.e. use the signals present on the key and fill inputs for the key on the specified layer.
- **ULIVE** : Unload the live key. If an internal file was previously loaded on the given layer that file will be restored. The live key will also be "unloaded" if another internal file is loaded on the same layer.
- **SFK** : Set self key
- **SPK** : Set separate key
- **STR** : Set transition rates for a layer. This command takes two additional parameters. The first parameter contains two characters describing which fade rate type will be modified, the second parameter is a number between 1 and 99 giving the number of frames for the new fade rate. Parameters are separated by spaces. The fade rate types are:
 - **FK** : Change the keyer fade rate.
 - **FB** : Change the fade to black rate.
 - **SL** : Change the slide rate.

The two commands below don't actually cause a command to be sent to the device. Instead they change the transition type for primary and secondary A/V events.

- **SETCUT** Set the transition type to Cut (the default).
- **SETFADE** Set the transition type to Fade.

Examples

"FTB:0" : Fades keyer level 0 to black.

"CUP" or "CUP:1" : Cuts the key in for level 1.

"STR:0 FK 60" : Changes the key fade rate to 60 frames for layer 0.

"SETFADE:0" : Subsequent primary (or secondary A/V) events played on layer 0 (head 1) will fade on and off.

Squeezy 2D DVE and Easy-Text control with “Data Events with Data”

Commonly used DVE functionality is available in the form of Secondary A/V events (see the above description). In addition, the Imagestore driver and LGK-3901 driver support all of the discreet digital video effects commands and easy text commands. These commands should be used as SECONDARY DATA EVENTS WITH DATA because the argument lengths are larger than the “Title” size. The name of the command is entered in the Title field, and the arguments in the External Data field separated by [Enter]. The driver checks the format of the arguments, but does not check the values’ range. Please see the device user manual for more details about argument formats.

Command (Title Field)	Description	Arguments (Data in Secondary Data Event with Data)
DVE-SSP	SetSqueezePreset	Preset, Xpos, Ypos, Xsize, Ysize
DVE-SSC	SelectSqueezeConfiguration	ConfigurationMode
DVE-RSM	RunSqueezeMove	Preset, Fields
DVE-SMP	SelectMoveProfile	Profile; 0 = linear, 1 = smoothed
DVE-SPB	SelectPresetBorders	PresetNo, Left, Right, Top, BottomBorder
ET-UTF	UpdateTextField	Layer, BoxNo, flags, String
ET-CBSAP	ChangeBoxSizeAndPosition	Layer, BoxNo, X, Y, Width, Height
ET-RB	RenderBox	Layer, BoxNo
ET-CI	ChangeImage	Layer, BoxNo, “NewLogo.txt”
ET-STFAC	SetTextFontAndColour	Layer, BoxNo, Size, Col, FontFileName
ET-ST	SetTransparency	Layer, BoxNo, Transparecnry
ET-STDS	SetTextDropShadow	Layer, BoxNo, Xoffset, Yoffset, Transparency, Color
ET-STT	SetTextTracking	Layer, BoxNo, Tracking
ET-STA	SetTextAlignment	Layer, BoxNo, HAlign, VAlign
ET-STW	SetTextWrapping	Layer, BoxNo, WrapMode
ET-STBC	SetTextBackgroundToClear	Layer, BoxNo
ET-STBM	SetTextBackgroundToMatte	Layer, BoxNo, Col, Trans, HBorder, VBorder
ET-STBTG	SetTextBackgroundToGradient	Layer, BoxNo, SourceCol, DestCol, BorderCol, Trans, BorderWidth, Direction, HBorder, VBorder
ET-STBO	SettingTemplateBackgroundOptions	Layer, Color, Transp, Mode, EdgeSize

Command (Title Field)	Description	Arguments (Data in Secondary Data Event with Data)
ET-RS	RunStrap	Layer, Start
ET-SSS	SetStrapSpeed	Layer, Speed_PixelsLinesPerField
ET-TBU	TextBoxUpdate	Layer, Field, flags, filename_strlen,filename,text
ET-IU	ImageUpdate	Layer, Field, filename_strlen, filename, image

Example of Easy Text - Playlist and According Trace:

Easy Text Playlist Example

Time	Device	Status	Protect	FStatus	Sec	Type	ID	Seq	Title	Duration	Start	End
00:00:00.00						A	Demo0002		Test audio type	00:00:10.00	00:00:00.00	
00:00:00.00					sAV	PT	15750		PLAY:1 S001	00:02:15.00	00:00:00.00	
00:00:00.00						A	Demo0003		Test audio type	00:00:10.00	00:00:00.00	
00:00:00.00					sAV	PT	15750		PLAY:2 S002	00:02:15.00	00:00:00.00	
00:00:00.00					sDAT	A	15750		ET-TTF	00:00:10.00	00:00:00.00	
00:00:00.00						A	Demo0004		Test audio type	00:00:10.00	00:00:00.00	
00:00:00.00					sAV	PT	15750		PLAY:3 S003	00:01:15.00	00:00:00.00	
00:00:00.00					sDAT	A	15750		ET-TTF	00:00:30.00	00:00:00.00	



 2 — layer number = head number -1
 2 — box number = 2
 1 — flag = 1
 Hello — text contents = Hello

Traces Accordingly from ET playlist example

```

031708_mod.TXT - Notepad
File Edit Format View Help
7 O> 12:37:09.17 ( 11) 03 52 30 33 53 30 30 33 3A AE C5 .R03S003:..
7 I< 12:37:09.18 ( 1) 05 .
7 O> 12:37:09.19 ( 11) 02 52 30 32 53 30 30 32 3A AE 84 .R02S002:..
7 I< 12:37:09.20 ( 1) 04 .
7 O> 12:37:09.21 ( 11) 03 52 30 31 53 30 30 31 3A AE 47 .R01S001:..G
7 I< 12:37:09.22 ( 1) 05 .
7 O> 12:37:15.17 ( 8) 02 33 31 20 31 3A 9E B1 .31 1:..
7 I< 12:37:15.18 ( 1) 04 .
7 O> 12:37:31.19 ( 18) 02 5A 30 31 30 32 31 47 6F 6F 64 20 42 79 65 3A .Z01021Good Bye:
65 24 e$
7 I< 12:37:31.20 ( 1) 04 .
7 O> 12:37:34.19 ( 8) 02 33 32 20 31 3A 9E F5 .32 1:..
7 I< 12:37:34.20 ( 1) 04 .
7 O> 12:37:50.22 ( 15) 02 5A 30 32 30 32 31 48 65 6C 6C 6F 3A 43 CC .Z02021Hello:C.
7 I< 12:37:50.23 ( 1) 04 .
7 O> 12:37:53.22 ( 8) 02 33 33 20 31 3A 9F 09 .33 1:..
7 I< 12:37:53.23 ( 1) 04 .
7 O> 12:39:08.24 ( 8) 03 33 33 20 30 3A 9E 99 .33 0:..
7 I< 12:39:08.25 ( 1) 05 .
7 O> 12:39:30.17 ( 8) 02 33 31 20 30 3A 9F 21 .31 0:..!
7 I< 12:39:30.18 ( 1) 04 .
7 O> 12:39:49.19 ( 8) 02 33 32 20 30 3A 9F 65 .32 0:..e
7 I< 12:39:49.20 ( 1) 04 .
  
```

Example of secondary event of IS750 / LGK-3901:

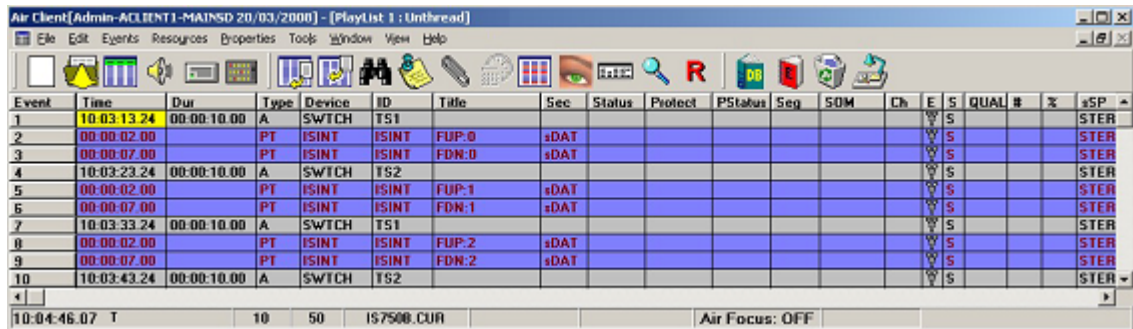
Example Playlist with secondary AV events of IS750 / LGK-3901

Example of DSK 1 as Layer 1, DSK 2 as Layer 2, and DSK 3 as Layer 3 with IS-750 / LGK-3901

00:00:00.00					A	Demo0002	Test audio type	00:00:10.00	00:0
00:00:00.00				sAV	PT	IS750	PLAY: S001	00:00:20.00	
00:00:00.00					A	Demo0003	Test audio type	00:00:10.00	00:0
00:00:00.00				sAV	PT	IS750	PLAY: S002	00:00:20.00	
00:00:00.00					A	Demo0004	Test audio type	00:00:10.00	00:0
00:00:00.00				sAV	PT	IS750	PLAY: S003	00:00:20.00	
00:00:00.00					A	Demo0005	Test audio type	00:00:10.00	00:0
00:00:00.00				sAV	PT	IS750	PLAY: S123	00:00:20.00	
00:00:00.00					A	Demo0006	Test audio type	00:00:10.00	00:0
00:00:00.00				sAV	PT	IS750	Play: sde06	00:00:20.00	
00:00:00.00					A	Demo0007	Test audio type	00:00:10.00	00:0
00:00:00.00				sAV	PT	IS750	Play: AS123	00:00:20.00	
00:00:00.00					A	Demo0008	Test audio type	00:00:10.00	00:0
00:00:00.00				sAV	PT	IS750	PLAY: AS003	00:00:20.00	
00:00:00.00					A	Demo0009	Test audio tune	00:00:10.00	00:0

Example Playlist with secondary Data events of IS750 / LGK-3901

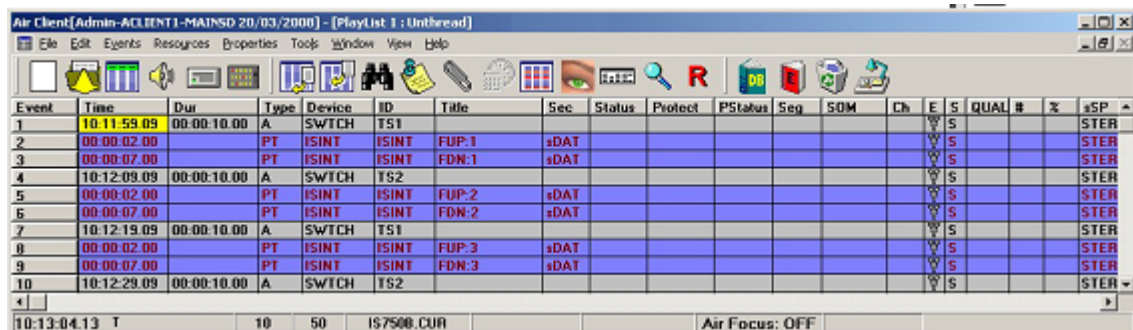
Example of DSK 1 as Layer 2, DSK 2 as Layer 3, and DSK 3 as Layer 4 with IS-750 / LGK-3901.



The screenshot shows the 'Air Client' interface with a playlist titled 'Playlist 1: Unthread'. The playlist contains 10 events. The first event is a switch from TS1 to TS2 at 10:03:13.24. The subsequent events are data events (sDAT) for FUP and FDN streams, alternating between TS1 and TS2. The interface includes a menu bar, a toolbar, and a status bar at the bottom showing 'Air Focus: OFF'.

Event	Time	Dur	Type	Device	ID	Title	Sec	Status	Protect	PStatus	Seg	SOM	Ch	E	S	QUAL	#	%	sSP
1	10:03:13.24	00:00:10.00	A	SWITCH	TS1										S				STER
2	00:00:02.00		PT	ISINT	ISINT	FUP:0	sDAT								S				STER
3	00:00:07.00		PT	ISINT	ISINT	FDN:0	sDAT								S				STER
4	10:03:23.24	00:00:10.00	A	SWITCH	TS2										S				STER
5	00:00:02.00		PT	ISINT	ISINT	FUP:1	sDAT								S				STER
6	00:00:07.00		PT	ISINT	ISINT	FDN:1	sDAT								S				STER
7	10:03:33.24	00:00:10.00	A	SWITCH	TS1										S				STER
8	00:00:02.00		PT	ISINT	ISINT	FUP:2	sDAT								S				STER
9	00:00:07.00		PT	ISINT	ISINT	FDN:2	sDAT								S				STER
10	10:03:43.24	00:00:10.00	A	SWITCH	TS2										S				STER

Example Playlist with secondary Data events of IS750 / LGK-3901



The screenshot shows the 'Air Client' interface with a playlist titled 'Playlist 1: Unthread'. The playlist contains 10 events. The first event is a switch from TS1 to TS2 at 10:11:59.09. The subsequent events are data events (sDAT) for FUP and FDN streams, alternating between TS1 and TS2. The interface includes a menu bar, a toolbar, and a status bar at the bottom showing 'Air Focus: OFF'.

Event	Time	Dur	Type	Device	ID	Title	Sec	Status	Protect	PStatus	Seg	SOM	Ch	E	S	QUAL	#	%	sSP
1	10:11:59.09	00:00:10.00	A	SWITCH	TS1										S				STER
2	00:00:02.00		PT	ISINT	ISINT	FUP:1	sDAT								S				STER
3	00:00:07.00		PT	ISINT	ISINT	FDN:1	sDAT								S				STER
4	10:12:09.09	00:00:10.00	A	SWITCH	TS2										S				STER
5	00:00:02.00		PT	ISINT	ISINT	FUP:2	sDAT								S				STER
6	00:00:07.00		PT	ISINT	ISINT	FDN:2	sDAT								S				STER
7	10:12:19.09	00:00:10.00	A	SWITCH	TS1										S				STER
8	00:00:02.00		PT	ISINT	ISINT	FUP:3	sDAT								S				STER
9	00:00:07.00		PT	ISINT	ISINT	FDN:3	sDAT								S				STER
10	10:12:29.09	00:00:10.00	A	SWITCH	TS2										S				STER

Testing

1. Ensure that the serial RS-422 cable is attached to both the server and the device.
2. Load a list into the Transmission window containing primary events with IDs matching the Name of the device, and with a valid file number in the Title field.
3. Make sure the device is properly set up from its control panel.
4. Run the play list.

Error Conditions and Recovery

If the device fails to communicate, go to the Device Server and go through the following sequence of menus.

1. Select the System Menu from the main menu bar.
2. Select the Diagnostics item from the System menu.
3. Select the device and choose Reinitialize.

If this fails to solve the problem, check the cables. Verify that the cable conforms to the specification given earlier in this document and that all the signal lines are good.

Test the device operation manually through its control panel, check its configuration; or power it off, then wait twenty seconds and power back on.

If the device still fails to communicate you may have a problem with the device itself. If this is the first time you've attempted to use this device, the device may have some internal jumpers set incorrectly for RS422 communications, or there may be an actual hardware error. Contact Miranda for assistance in North America.

Internal Document

XXXXX

File

XXXXX